



#5

SEQUENCE LISTING

<110> Tucker, Kenneth
Plosila, Laura

<120> MORAXELLA CATARRHALIS OUTER MEMBRANE PROTEIN-106 POLYPEPTIDE, GENE
SEQUENCE AND USES THEREOF

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<140> 09/813,214

<141> 2001-03-20

<150> 08/968,685

<151> 1997-11-12

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<170> PatentIn version 3.0

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 Ala Ala Ser Ile Gly Asp Val Leu Asn Ala Gly Phe Asn Leu Lys Asn
 900 905 910
 Asn Gly Asp Ala Lys Asp Phe Val Ser Thr Tyr Asp Thr Val Asp Phe
 915 920 925
 Ile Asn Gly Asn Ala Thr Thr Ala Lys Val Thr Tyr Asp Gly Lys Ala
 930 935 940
 Ser Lys Val Ala Tyr Asp Val Asn Val Asp Gly Thr Thr Ile His Leu
 945 950 955 960
 Thr Gly Ala Asp Gly Asn Lys Asn Gln Ile Gly Val Lys Thr Thr Thr
 965 970 975
 Leu Thr Lys Thr Asp Ala Lys Gly Asp Lys Ala Ile Asn Phe Ser Val
 980 985 990
 Asn Ser Gly Asp Asp Lys Ala Leu Ile Asn Ala Lys Asp Ile Ala Asp
 995 1000 1005

Asn	Leu	Asn	Thr	Leu	Ala	Gly	Glu	Ile	Arg	Asn	Thr	Lys	Gly	Thr
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1055						1060					1065			
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1070						1075					1080			
Gly	Ile	Asn	Thr	Gln	Ser	Gly	Leu	Lys	Ala	Gly	Asn	Asn	Thr	Thr
1085						1090					1095			
Leu	Asn	Asn	Asn	Gly	Leu	Ser	Ile	Lys	Asn	Thr	Ala	Gly	Asn	Glu
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Gln	Ile	Gln	Val	Gly	Ala	Asp	Gly	Val	Lys	Phe	Ala	Lys	Val	Asn
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Arg	Asp	Glu	Ile	Gly	Phe	Ala	Gly	Thr	Asn	Gly	Ser	Leu	Asp	Lys
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Ser	Lys	Pro	His	Leu	Ser	Lys	Asp	Gly	Ile	Asn	Ala	Gly	Gly	Lys
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Lys	Ile	Thr	Asn	Ile	Gln	Ser	Gly	Glu	Ile	Ala	Gln	Asn	Ser	Asn
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Asp	Ala	Val	Thr	Gly	Gly	Lys	Ile	Tyr	Asp	Leu	Lys	Thr	Glu	Leu
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Glu	Asn	Lys	Ile	Ser	Ser	Thr	Ala	Lys	Thr	Ala	Gln	Asn	Ser	Leu
1205						1210					1215			
His	Glu	Phe	Ser	Val	Ala	Asp	Glu	Gln	Gly	Asn	Asn	Phe	Thr	Val
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Ser	Asn	Pro	Tyr	Ser	Ser	Tyr	Asp	Thr	Ser	Lys	Thr	Ser	Asp	Val
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Ile	Thr	Phe	Ala	Gly	Glu	Asn	Gly	Ile	Thr	Thr	Lys	Val	Asn	Lys
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Pro	Lys	Leu	Thr	Val	Gly	Asn	Asn	Asn	Gly	Lys	Gly	Ile	Val	Ile
1280						1285					1290			
Asp	Ser	Gln	Asn	Gly	Gln	Asn	Thr	Ile	Thr	Gly	Leu	Ser	Asn	Thr
1295						1300					1305			
Leu	Ala	Asn	Val	Thr	Asn	Asp	Lys	Gly	Ser	Val	Arg	Thr	Thr	Glu
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Gln Gly	Lys Ile Ile Lys	Asp	Glu Asp Lys Thr Arg	Ala Ala Ser
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Ile Val	Asp Val Leu Ser	Ala	Gly Phe Asn Leu Gln	Gly Asn Gly
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Glu Ala	Val Asp Phe Val	Ser	Thr Tyr Asp Thr Val	Asn Phe Ala
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Asp Gly	Asn Ala Thr Thr	Ala	Lys Val Thr Tyr Asp	Asp Thr Ser
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Lys Thr	Ser Lys Val Val	Tyr	Asp Val Asn Val Asp	Asp Thr Thr
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Ile Glu	Val Lys Asp Lys	Lys	Leu Gly Val Lys Thr	Thr Thr Leu
1400		1405		1410
Thr Ser	Thr Gly Thr Gly	Ala	Asn Lys Phe Ala Leu	Ser Asn Gln
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Ala Thr	Gly Asp Ala Leu	Val	Lys Ala Ser Asp Ile	Val Ala His
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Leu Asn	Thr Leu Ser Gly	Asp	Ile Gln Thr Ala Lys	Gly Ala Ser
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Gln Ala	Asn Ser Ser Ala	Gly	Tyr Val Asp Ala Asp	Gly Asn Lys
1460		1465		1470
Val Ile	Tyr Asp Ser Thr	Asp	Asn Lys Tyr Tyr Gln	Ala Lys Asn
1475		1480		1485
Asp Gly	Thr Val Asp Lys	Thr	Lys Glu Val Ala Lys	Asp Lys Leu
1490		1495		1500
Val Ala	Gln Ala Gln Thr	Pro	Asp Gly Thr Leu Ala	Gln Met Asn
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Val Lys	Ser Val Ile Asn	Lys	Glu Gln Val Asn Asp	Ala Asn Lys
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Lys Gln	Gly Ile Asn Glu	Asp	Asn Ala Phe Val Lys	Gly Leu Glu
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Lys Ala	Ala Ser Asp Asn	Lys	Thr Lys Asn Ala Ala	Val Thr Val
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Gly Asp	Leu Asn Ala Val	Ala	Gln Thr Pro Leu Thr	Phe Ala Gly
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Asp Thr	Gly Thr Thr Ala	Lys	Lys Leu Gly Glu Thr	Leu Thr Ile
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Lys Gly	Gly Gln Thr Asp	Thr	Asn Lys Leu Thr Asp	Asn Asn Ile
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Gly Val	Val Ala Gly Thr	Asp	Gly Phe Thr Val Lys	Leu Ala Lys
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Asp Leu	Thr Asn Leu Asn	Ser	Val Asn Ala Gly Gly	Thr Lys Ile
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Lys	Val	Ile	Ser	Asn	Val	Gly	Lys	Gly	Thr	Lys	Asp	Thr	Asp	Ala
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Thr	Val	Ile	Lys	Ala	Gly	Thr	Val	Leu	Gly	Gly	Lys	Gly	Asn	Asn
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1895						1900					1905			
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1925						1930					1935			
Ser	Asn	Ser	Val	Ala	Leu	Gly	Ser	Asn	Ser	Ala	Ile	Ser	Ala	Gly
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Thr	His	Ala	Gly	Thr	Gln	Ala	Lys	Lys	Ser	Asp	Gly	Thr	Ala	Gly
1955						1960					1965			
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1970						1975					1980			
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1985						1990					1995			
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2000						2005					2010			
Ser	Thr	Asp	Ala	Val	Asn	Gly	Ser	Gln	Leu	Tyr	Lys	Ala	Thr	Gln
2015						2020					2025			
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Ala	Ser	Met	Pro	Gln	Ala	Tyr	Ile	Pro	Gly	Arg	Ser	Met	Val	Thr
2060						2065					2070			
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2075						2080					2085			
Leu	Ser	Lys	Leu	Ser	Asp	Asn	Gly	Gln	Trp	Val	Phe	Lys	Ile	Asn
2090						2095					2100			
Gly	Ser	Ala	Asp	Thr	Gln	Gly	His	Val	Gly	Ala	Ala	Val	Gly	Ala
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Ser Gln Ser Ile Ala Ile Gly Asp
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